

Cleaning of hollow fibre membranes

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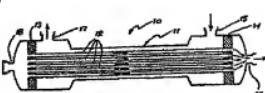
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Abstract not available for CN 1159789 (A)

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A method and apparatus for recovering fine solids from a liquid feed suspension is disclosed. The apparatus has an operating cycle including a concentration part of the cycle in which solids present in the feed suspension are concentrated and a backwash part of the cycle in which supply of feed suspension to the concentration part is terminated, the concentrator comprising a shell (11), and a plurality of elastic, hollow, microporous, polymer fibres (12) being fixed at their ends within the shell (11). Pressurized feed suspension is supplied to the outside of the fibres during said concentration part of the cycle and the filtrate may be withdrawn from the fibre lumens during the operating cycle. During the backwash cycle the concentration part of the cycle is terminated by ceasing supply of feed to said exterior surface of the fibres (12). The shell (11) is then sealed and the remaining filtrate removed from the lumens. A source of fluid under pressure is then applied to said lumens before, at the same time as, or just after opening the shell (11) to atmosphere, to cause explosive decompression through the walls of the fibres (12) whereby the fluid under pressure passes through said walls to a pressure level in said lumens and maintained at a predetermined value for a sufficient time following said decompression to cause substantial portions of solids lodged within and/or on the fibre walls to be dislodged. The dislodged contaminant matter is then washed away by the application of a flow of liquid over the surface of the fibre walls; and the concentration part of the operating cycle is recommenced by introducing the supply of feed suspension to said exterior surface of said fibres (12).



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